Amendments To the Claims:

Please amend the claims as shown. Applicant reserves the right to pursue any canceled claims at a later date.

1-11 . (canceled)

12. (new) A turbine shaft in a turbine engine, comprising:

a first cooling circuit characterized by a first region separated flow wise from a third region by a second region,

wherein the first region contains live steam during operation,

wherein the third region contains used steam during operation, and

wherein the second region is located within a first blade; and

a second cooling circuit characterized by a first region separated flow wise from a third region by a second region,

wherein the first region contains live steam during operation,

wherein the third region contains used steam during operation, and

wherein the second region is located within a second blade,

wherein each first region is in communication flow wise with a source of live steam during operation, and

whereby each of the cooling circuits is effective to maximize cooling efficiency by delivering live steam to each of the cooling circuit first regions.

13. (new) The turbine shaft according to claim 12, wherein the third region of the first circuit communicates flow wise with the third region of the second circuit.

14. (new) The turbine shaft according to claim 13, further comprising a coolant exit in communication flow with at least one of the third regions.

15. (new) The turbine shaft according to claim 13, wherein the third region of the first circuit is sealed from the first region of the second circuit during operation.

16. (new) The turbine shaft according to claim 15, wherein the third region of the first circuit is located radially inward from the first region of the second circuit.

17. (new) The turbine shaft according to claim 15, wherein a pressure of the live steam is greater than a pressure of the used steam.

18. (new) A turbine shaft in a turbine engine, comprising:

a first cooling circuit characterized by a first region separated flow wise from a third region by a second region,

wherein the first region contains live steam during operation,

wherein the third region contains used steam during operation, and

wherein the second region is located within a first blade;

a second cooling circuit characterized by a first region separated flow wise from a third region by a second region,

wherein the first region contains live steam during operation,

wherein the third region contains used steam during operation, and

wherein the second region is located within a second blade; and

a coolant exit in communications flow with at least one of the third regions,

wherein the third region of the first circuit communicates flow wise with the third region of the second circuit,

whereby the first and second blades are cooled by the live steam during operation.

19. (new) The turbine shaft according to claim 18, wherein the third region of the first circuit is sealed from the first region of the second circuit during operation.

20. (new) The turbine shaft according to claim 18, wherein the third region of the first circuit is located radially inward from the first region of the second circuit.

21. (new) A method for cooling a blade of a turbine engine, comprising:

providing a first cooling circuit characterized by a first region separated flow wise from a third region by a second region,

wherein the second region is located within a first blade;

providing a second cooling circuit characterized by a first region separated flow wise from a third region by a second region,

wherein the second region is located within a second blade; and

providing live steam to each of the first regions,

wherein each respective blade is cooled with the live steam from the respective first region,

wherein the heated live steam forms used steam, and

wherein the respective third region contains the used steam,

whereby each of the cooling circuits is effective to maximize cooling efficiency by delivering live steam to each of the cooling circuit first regions.

22. (new) The method according to claim 21, further comprising:

providing a turbine shaft having a plurality of disks,

wherein the first and second regions are cavities which are formed via adjacent disks.

23. (new) The method according to claim 21, wherein the third region of the first circuit communicates flow wise with the third region of the second circuit.

24. (new) The method according to claim 23, further comprising providing a coolant exit in communications flow with at least one of the third regions.